<u>IN THE CLAIMS</u>:

Please amend Claims 1, 9, and 24, as indicated below. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

1. (currently amended): A moving image decoding method of decoding encoded moving image data, which is generated by decomposing each frame of moving image data into a plurality of subbands, and encoding a plurality of coefficients for each subband from upper to lower bits for respective bitplanes or sub-bitplanes for a predetermined unit, ~~the method comprising~~ <u>using a computer to perform the steps of</u>:

a calculation step of, ~~for each frame~~ <u>for every decoding of a video frame</u>, calculating a time difference ΔT between a decoding process time DT ~~required to perform~~ <u>taken in</u> a decoding process <u>of the video frame</u> and a target decoding time T for the decoding process[[,]] and ~~summing each~~ <u>adding the</u> calculated time difference ΔT to ~~obtain~~ an <u>accumulated time difference TT to update the</u> accumulated time difference TT;

a non-decoding bitplane determination step of determining bitplanes or sub-bitplanes that are not to be decoded based on the <u>updated</u> accumulated time difference TT;

a bitplane decoding step of reclaiming the plurality of coefficients of the plurality of subbands from encoded data of bitplanes or sub-bitplanes other than the bitplanes or sub-bitplanes determined in the non-decoding bitplane determination step; and

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a subband composition step of generating frame data by compositing the coefficients of the plurality of subbands reclaimed in the bitplane decoding step,

wherein the non-decoding bit-plane determination step includes steps of:

managing a table which stores~~, for each subband, a plurality of candidates, wherein each candidate represents a number of lower bitplanes or lower sub-bitplanes that are not to be decoded, wherein each of the plurality of candidates is associated with an index, wherein, for each subband, increasing values of the plurality of candidates are arranged in an increasing order of values of associated indices~~ the number $N(s, i)$ of lower bit-planes or lower sub-bitplanes that are not to be decoded for each subband s and each index i, wherein $N(s, i+1) \geq N(s, i)$,

~~controlling a value of a variable Q~~ deciding a value of the index i in accordance with the updated accumulated time difference TT;

selecting ~~a candidate associated with an~~ the number $N(s, i)$ for each subband s uniquely defined by the decided value of the index i ~~corresponding to the variable Q, for each subband~~ from the table, and

setting lower bitplanes or lower sub-bitplanes ~~corresponding to the selected candidate~~ for each subband s, the number of which is the selected $N(s, i)$, as the bitplanes or sub-bitplanes that are not to be decoded.

2. - 6.   (cancelled).

7.   (original): The method according to claim 1, wherein subband decomposition for generating the encoded moving image data is attained by two-dimensional discrete wavelet transformation, and the subband composition step includes a step of compositing the frame data using two-dimensional inverse discrete wavelet transformation.

8.   (original): The method according to claim 1, wherein the predetermined unit is a frame or a block obtained by segmenting a frame into a plurality of blocks.

9.   (currently amended):   A moving image decoding apparatus for decoding encoded moving image data, which is generated by decomposing each frame of moving image data into a plurality of subbands, and encoding a plurality of coefficients for each subband from upper to lower bits for respective bitplanes or sub-bitplanes for a predetermined unit, ~~comprising~~ using a computer to perform the steps of:

a calculation means for calculating, ~~for each frame~~ every decoding a video frame, a time difference ΔT between a decoding process time DT ~~required to perform~~ taken in a decoding process of the video frame and a target decoding time T for the decoding process[[,]] and ~~summing each~~ adding the calculated time difference ΔT to ~~obtain an~~ to an accumulated time difference TT to update the accumulated time difference TT;

non-decoding bitplane determination means for determining bitplanes or sub-bitplanes that are not to be decoded based on the <u>updated</u> accumulated time difference TT;

bitplane decoding means for reclaiming the plurality of coefficients of the plurality of subbands from encoded data of bitplanes or sub-bitplanes other than the bitplanes or sub-bitplanes determined by said non-decoding bitplane determination means; and

subband composition means for generating frame data by compositing the coefficients of the plurality of subbands reclaimed by said bitplane decoding means,

wherein the non-decoding bit-plane determination means includes:

means for managing a table which stores~~, for each subband, a plurality of candidates, wherein each candidate represents a number of lower bitplanes or lower sub-bitplanes that are not to be decoded, wherein each of the plurality of candidates is associated with an index, wherein, for each subband, increasing values of the plurality of candidates are arranged in an increasing order of values of associated indices~~ <u>the number N(s, i) of lower bit-planes or lower sub-bitplanes that are not to be decoded for each subband s and each index i, wherein N(s, i+1) ≥ N(s, i),</u>

~~controlling a value of a variable Q~~ <u>deciding a value of the index i</u> in accordance with a value of the <u>updated</u> accumulated difference time TT;

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means for selecting ~~a candidate associated with an~~ the number N(s, i) for each subband s uniquely defined by the decided value of the index i ~~corresponding to the variable Q, for each subband~~ from the table, and

means for setting lower bitplanes or lower sub-bitplanes ~~corresponding to the selected candidate~~ for each subband s, the number of which is the selected N(s, i), as the bitplanes or sub-bitplanes that are not to be decoded.

10.   (previously presented): A computer-readable medium, storing a program, in executable form, for causing an information processing apparatus to perform a moving image decoding method according to claim 1.

11.   (cancelled).

12.   (withdrawn): An image decoding method of receiving moving image data, in which images of respective frames have been encoded, and decoding encoded image data of the respective frames, comprising:

a sample frame decoding step of extracting encoded image data of a sample frame from the respective frames, and decoding the encoded image data using a predetermined decoding unit;

a first measurement step of measuring a time required to decode the encoded image data of the sample frame;

a determination step of determining the number of decoding units to be decoded so that the time measured in the first measurement step becomes not more than a predetermined time;

a decoding step of decoding encoded image data of the respective frames in accordance with the determined number of decoding units;

a second measurement step of measuring a time required to decode each frame upon decoding the frame in the decoding step;

an update step of accumulating a difference between the predetermined time and the time measured in the second measurement step every time the frame is decoded, and updating the number of decoding units determined in the determination step when the accumulated value becomes not less than a predetermined value; and

in that the decoding step includes a step of decoding the encoded image data of each frame in accordance with the number of decoding units determined in the determination step or the number of decoding units updated in the update step.

13.   (withdrawn): The method according to claim 12, further comprising:

a third measurement step of measuring a time required to decode each decoding unit upon decoding the encoded image data of the sample frame in the sample frame decoding step, and

in that the determination step includes a step of:

determining, when the time measured in the first measurement step is larger than the predetermined time, the number of decoding units to be decoded by subtracting the decoding time required to decode each decoding unit measured in the third measurement step from the time measured in the first measurement step, and determining the number of non-decoding decoding units, which is specified by arranging all decoding units that form one frame in a predetermined order and counting the arranged all decoding units, on the basis of the number of times of subtraction of the time measured in the third measurement step from the time measured in the first measurement step, when the difference becomes not more than the predetermined value.

14.   (withdrawn): The method according to claim 12, wherein the determination step includes a step of determining decoding units which are to be or not to be decoded of decoding units which form one frame.

15.   (withdrawn): The method according to claim 12, wherein the update step includes a step of increasing, when the accumulated value becomes not less than a predetermined value, the number of decoding units determined in the determination step.

16.   (withdrawn): The method according to claim 12, further comprising a step of:

storing data of a table in which a plurality of different sets of values of a parameter associated with image quality and the numbers of decoding units to be decoded are registered in a memory, and

in that the sample frame decoding step includes a step of executing the decoding process of the encoded image data of the sample frame using the parameter for different parameter values by changing the parameter value,

the first measurement step includes a step of measuring decoding times in the sample frame decoding step for respective parameter values, and

the determination step includes a step of:

subtracting, when a first time measured in the first measurement step is larger than the predetermined time upon decoding the sample frame using a predetermined parameter value in the sample frame decoding step, a difference between neighboring times from the first time in each decoding time, determining the parameter value based on the number of times of subtraction when the difference becomes not more than the predetermined value, and determining the number of decoding units to be decoded corresponding to the determined parameter value with reference to the table.

17.   (withdrawn): The method according to claim 16, wherein the update step includes a step of increasing, when the accumulated value becomes not less than the predetermined value, the parameter value determined in the determination step, and increasing the number of decoding units with reference to the data of the table.

18.   (withdrawn): The method according to claim 16, wherein the parameter associated with image quality is a **Q** factor.

19.   (withdrawn): The method according to claim 12, wherein the decoding unit includes one of a bitplane and sub-bitplane.

20.   (withdrawn): The method according to claim 12, comprising a step of holding images of respective frames decoded in the decoding step for a predetermined number of frames, and outputting the decoded images of the frames to a display apparatus that makes display at a predetermined frame rate at a predetermined time interval according to the frame rate.

21.   (withdrawn): An image decoding apparatus for receiving moving image data, in which images of respective frames have been encoded, and decoding encoded image data of the respective frames, comprising:

sample frame decoding means for extracting encoded image data of a sample frame from the respective frames, and decoding the encoded image data using a predetermined decoding unit;

first measurement means for measuring a time required to decode the encoded image data of the sample frame;

determination means for determining the number of decoding units to be decoded so that the time measured by said first measurement means becomes not more than a predetermined time;

decoding means for decoding encoded image data of the respective frames in accordance with the determined number of decoding units;

second measurement means for measuring a time required to decode each frame upon decoding the frame by said decoding means; and

update means for accumulating a difference between the predetermined time and the time measured by said second measurement means every time the frame is decoded, and updating the number of decoding units determined by said determination means when the accumulated value becomes not less than a predetermined value, and

in that said decoding means decodes the encoded image data of each frame in accordance with the number of decoding units determined by said determination means or the number of decoding units updated by said update means.

22.   (withdrawn): A program making a computer implement an image decoding method of claim 12.

23.   (withdrawn): A computer readable storage medium storing a program of claim 22.

24.   (currently amended): The method according to claim 1, wherein the value of the ~~variable Q~~ index i is <u>decided to be</u> decreased, when the accumulated time difference TT is larger than a first threshold, and

the value of the ~~variable Q~~ index i is <u>decided to be</u> increased, when the accumulated time difference TT is smaller than a second threshold.